REMARKS

Applicants are in receipt of the Office Action mailed March 30, 2004. Claims 1-28 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 103(a) Rejection:

The Office Action rejected claims 1-7, 14-2 and 27 under 35 U.S.C. § 103(a) as being unpatentable over Liao et al. (U.S. Patent 6,606,663) (hereinafter "Liao") in view of Schwartz et al. (U.S. Patent 6,473,609) (hereinafter "Schwartz").

Regarding claim 1, Applicants submit that Liao fails to teach receiving an address for a service within the distributed computing environment; linking said address to a pre-generated message interface for accessing the service, wherein the message interface comprises computer-executable code built into the device.

Instead, Liao teaches a credential caching proxy server that handles credential caching for a set of wireless devices. The proxy server intercepts and caches a wireless client's credentials when a credential is first sent to a protected server and uses the cached credentials for all resource requests with the protected realm of the server. The Examiner's cited passages (Fig. 1-3, column 4, lines 35-48, column 6, lines 1-15, and column 12, lines 36-53) teach a system wherein a proxy server intercepts and caches a mobile client's credentials, but mention nothing regarding the linking of an address for a service to a pre-generated message interface. In fact, Liao teaches that the proxy server uses the cached credentials for any requests within the same protected realm. In other words, rather than teach that a service address is linked to a message interface, Liao teaches that a proxy server uses cached credentials with multiple services.

Further, Liao also fails to teach wherein the message interface comprises computer-executable code built into the device. In contrast, Liao teaches the use of a

proxy server that resides on a separate device from the client devices for which it caches credentials (Liao, Internet proxy server 114 in Figure 2 and column 6, lines 41 – 60). Thus, Liao's proxy server cannot represent a message interface in a method comprising linking an address to such a pre-generated message interface for accessing said service, wherein the message interface comprising computer-executable code built into the device for which a message endpoint is created, as the examiner contends.

The Examiner admits that Liao fails to teach a method wherein said linking creates a message endpoint for said device to send messages to said service at said address in order to access said service and using said message endpoint to send messages to said address to access said service. The examiner relies upon Schwartz to teach this. However, applicants assert that Schwartz does not teach such a method.

Schwartz teaches a method for two-way interactive communication and navigation of the Internet by wireless mobile devices through the cooperation of an interface engine on the mobile devices and a control engine on the server linking the wireless network with the Internet (Schwartz, Abstract). Schwartz further teaches that control engine, "which utilizes the computing resources of the link server device, is responsible for tasks that require considerable computing power and memory, such as processing of URL requests, interpretation of markup language files, management of data cache and variable states" (Schwartz, column 2, lines 50-58). Schwartz also teaches the use of a message processor on the server that translates incoming (to the mobile device) messages into a compact format (HDTP) (Schwarz, column 8, lines 46-58).

None of the Examiner's cited passages in Schwartz teach or suggest linking an address to a pre-generated message interface, wherein said linking creates a message endpoint for said device to send messages to said service at said address in order to access said service. In contrast, Schwartz teaches that a control engine that intercepts and translates messages to various mobile devices into a compact format and also performs various functions that require more computing power and/or memory than a typical mobile device. Additionally, Schwartz also (in addition to Liao) fails to teach wherein

the message interface comprises computer-executable code built into the device for which a message endpoint is created. Schwartz, like Liao, teaches that his control engine resides on a separate device and can thus provide the extra computing power and memory required for certain functions.

Additionally, the combination of Liao and Schwartz results in a system that uses the interface and control engines of Schwartz that also performs the credential caching as taught by Liao. Applicants assert that such a combination does not result in a method comprising: receiving an address for a service within the distributed computing environment; linking the address to a pre-generated message interface for accessing the service, wherein the message interface comprises computer-executable code built into the device, and wherein the linking creates a message endpoint for the device to send messages to the service at the address in order to access the service.

Thus, in light of the above remarks, applicants assert that the rejection of claim 1 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 1 apply to claims 14 and 27.

Regarding claim 2, applicants disagree with the Examiner and further submit that Schwartz does not teach a method further comprising a message interface of the message endpoint verifying that the messages sent to the service comply with a message schema for the service. Schwartz fails to teach anything at all regarding schemas for services. In contrast, Schwartz teaches the translation of messages into a compact format for delivery over a wireless network to a mobile device with limited computing resources. Applicants additionally point out that Liao also fails to teach a message interface of a message endpoint verifying that the message sent to a service comply with a message schema for the service.

Neither Liao nor Schwartz, either separately or in combination, teach or imply a method further comprising a message interface of the message endpoint verifying that the messages sent to the service comply with a message schema for the service. And thus, in

light of the above remarks, applicants assert that the rejection of claim 2 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 2 apply to claim 15.

Regarding claim 3, the examiner contends that Liao discloses a method wherein said message schema defines messages to be sent to and received from said service, wherein said messages are defined in a data representation language. Applicants respectfully disagree with the Examiner and submit that Liao, in fact, fails to teach such a method. Neither the Examiner's cited passage nor any other portion of Liao teaches a message schema that defines messages defined in a data representation language to be sent to and received from a service. The Examiner's cited passage (Liao, column 5, lines 5-26) describe general message formats and protocols, such as WSP, HDTP, HDML, WML, HTML, etc, that may be used within his convention. However, the discussion of various formats and protocols in Liao does not teach a schema that defines the messages that may be sent to or received from a service. Nor does Schwartz teach a message schema that defines messages to be sent to and received from said service. Thus, applicants assert that neither Liao nor Schwartz, either alone or in combination, teach wherein a message schema defines messages to be sent to and received from said service, wherein said messages are defined in a data representation language. Therefore, in light of the above remarks, applicants assert that the rejection of claim 3 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 3 apply to claim 16.

Regarding claim 6, Liao does not disclose a method comprising: locating a service advertisement for said service, wherein said service advertisement indicates an authentication service; and requesting said authentication credential from said authentication service to access said service; and wherein said receiving an authentication credential comprises receiving said authentication credential from said authentication service. In contrast, Liao teaches a credential caching proxy server that handles credential caching for a set of wireless devices. The proxy server intercepts and caches a wireless client's credentials when a credential is first sent to a protected server and uses the cached

credentials for all resource requests with the protected realm of the server. The Examiner cites several passages in Liao (Title, Abstract, Figure 3, column 7 - lines 55-67, column 8 - lines 24-41, and column 9 – lines 46-67) that all describe a proxy server intercepting a messages from a wireless client, determining if the message includes a credential, if so caching the credential to insert into future messages to internet resources within the same protected realm. Applicants can find no reference in the cited passages, or in Liao as a whole, that teaches or suggests locating a service advertisement that indicates an authentication service, requesting an authentication credential from the authentication service, or receiving the authentication credential from the authentication service. Further, applicants can find no such teaching or suggestion in Schwartz.

Therefore, in light of the above remarks, applicants assert that the rejection of claim 6 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 6 apply to claim 19.

Regarding claim 7, Schwartz fails to teach a method comprising: locating a service advertisement for said service, wherein said service advertisement comprises said address for said service and indicates a message schema for said service; wherein said receiving an address comprises receiving said address from said service advertisement, and wherein said linking comprises verifying that said pre-generated message interface corresponds to said message schema. The Examiner cites several passages in Schwartz (Figures 1, 3A – 4, 6, 8A-B, column 2, lines 50-67, column 3, lines 37-61, column 8, lines 46-67) which describe how a control engine on a server device is responsible for tasks that require more processing power or memory than a wireless device may have, and also how such a control engine may translate messages into a compact format for delivery to the mobile device over a wireless interface. However, applicants can find no teaching or suggestion in the cited passages, the cited figures, or the entirety of Schwartz, regarding locating a service advertisement that comprises an address for a service and that indicates a message schema for the service, wherein receiving an address comprises receiving the address from the service advertisement, and wherein said linking comprises verifying that a pre-generated message interface corresponds to the message schema. In fact, applicants

cannot find any references whatsoever in Schwartz, or Liao, to service advertisements, or message schemas.

Therefore, in light of the above remarks, applicants assert that the rejection of claim 7 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 7 apply to claim 20.

The Office Action rejected claims 8-14, 21-26 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Hind, et al. (U.S. Patent 6,585,778) (hereinafter "Hind") in view of Lee, et al. (U.S. Patent 6,336,137) (hereinafter "Lee").

Regarding claim 8, the examiner argues that Hind discloses a method for accessing services, comprising: receiving a schema defining messages for accessing the service; generating message endpoint code according to said schema. Applicants respectfully disagree with the Examiner's interpretation of Hind. Specifically, applicants assert that Hind fails to teach or disclose receiving a schema defining messages for accessing the service.

Hind teaches a system for data policy enforcement using style sheet processing wherein a Document Type Definitions (DTD) including stored policy enforcement objects is applied to an input document representing a response to a user request. In the examiner' cited passages (Abstract, column 4, lines 16-32, lines 50-59, and column 7, lines 9-18) describe that a DTD corresponding to the input document may include references to stored policy enforcement objects that each enforce a data policy for an element of the input document and that each referenced stored policy objects is instantiated and applied to the input document to create an output document matching the enforced data policies (Hind, column 4, lines 16-32). Further, Hind goes on to teach that executing selected ones of the instantiated policy enforcement objects may also involve considering a target context of a user or may involve determining whether an output DTD element will be created for an element of the input document (Hind column 4, lines 50-59). The last cited passage describes how Hind's invention may be implemented as a

software program running on an intermediary of a network or as individual modules invoked upon request (Hind, column 7, lines 9-18). Applicants note however, that none of the cited passages describe receiving a schema defining messages for accessing a service. In contrast, Hind teaches a system that enforces data policy on retrieved documents (resulting from user requests). Hind fails to teach anything regarding schemas that define messages for accessing services. Instead Hind deals with data documents that result from user requests.

Applicants also assert that Hind fails to teach generating message endpoint code according to the schema. Hind teaches the loading and executing of data policy objects that are referenced in a DTD defining data policies to be enforced on an input document representing a response to a user request. Applicants submit, however, that such data policy objects are not message endpoint code, but instead are style sheets that translate, transform, or tailor the information of input documents before they are delivered to particular devices (Hind, column 7, lines 29-49, column 8, lines 38-57). Applicants submit that such style sheet processing and data transformation is not the generation of message endpoint code according to a schema defining messages for accessing a service.

The examiner admits that Hind does not teach linking said message endpoint code into executable operating code for the device and loading the message endpoint code and operating code onto the device and contends that Lee teaches such. Applicants, however, disagree with the Examiner's interpretation of Lee. Lee discloses a method for transferring data via a network between a server and clients or browsers that are spatially distributed wherein a server parses client requests to determine both the language of the request and the information requested. The server also associates various markup languages with different virtual directories and clients that want to request a particular markup language can route their requests to the appropriate directory. (Lee, Abstract, column 4, lines 13-34). Applicants assert that Lee fails to teach linking generated message endpoint code into executable operating code for the device and loading the message endpoint code and operating code onto the device. The examiner cites two passages in support of his arguments. The first passage describes how a client may be an

HTTP client and also a gateway server to wireless browser clients that request pages from the client via WAP protocol that the gateway server transforms into HTTP/WML requests that are submitted to the main server. Such a gateway server also transforms the responses back into WAP/WML responses to be returned to the wireless clients (Lee, column 9, lines 21-45). The second passage cited by the Examiner describes a web engine that interprets a WML template containing embedded tags regarding what data the engine should retrieve from an associated database. The web engine then generates new WML code segments with the requested data and replaces the tags in the original WML template with the new code and sends the completed WML file to a WML browser (Lee, column 12, lines 22-38). Applicants can find no relevance in the Examiner's cited passages to linking generated message endpoint code into executable operating code for a device and loading the massage endpoint code and operating code onto the device. In contrast, Lee is teaching the use of specialized SWE tags for building custom data responses in a client requested mark up language. In fact, Applicants can find no reference in anywhere in Lee regarding any type of linking or loading message endpoint code.

Applicants can find no reference in Hind or Lee, either separately or in combination, that teaches or suggests receiving a schema defining messages for accessing a service; generating message endpoint code according to the schema; and linking the message endpoint code into executable operating code for the device and loading the message endpoint code and operating code onto the device.

Therefore, in light of the above remarks, applicants assert that the rejection of claim 8 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 8 apply to claims 21 and 28.

Regarding claim 9, Applicants disagree with the Examiner's contention and assert that Lee fails to disclose a method wherein said message endpoint is configured to verify that said messages sent from the device to the service comply with said schema. The

Examiner cited two passages in support of his contention. The first (Lee, column 5, lines 26-50) describes Lee's client-server method where the server is configured to receive requests from and send responses to the client. The server is also configured to determine the language, protocol or syntax in the client requests and to interpret the request to determine the data submitted by the client. The system then recovers metadata or descriptive information from a metadata repository and creates a response in the client's preferred language, protocol, and/or syntax. Lee's system also includes the capability for interpreting the client request to determine classes or instances of business objects and user data to associate with the request and to determine data submitted by the client regarding creating, modifying, deleting, or appending such business objects. The second cited passage (Lee, column 7, lines 10-24) describes how, under Lee, the metadata may have different representations according to the client's preferred language, protocol, or syntax and how the server is configured to represent such metadata using the client's preferences. Applicants fail to see the relevance of either cited passage to a method wherein a message endpoint is configured to verify that messages sent from a device to a service comply with a schema defining messages for accessing the service. In contrast, Lee teaches that a server determines a client's preferred language, protocol, and/or syntax and ensures that responses are appropriate for the client according to the client's preferred language, protocol, or syntax. Applicants also fail to see how Lee's title, "Web Client-Server System and Method for Incompatible Page Markup and Presentation Languages," as cited by the Examiner, is relevant to the Examiner's argument. None of these teachings in Lee have anything to do with a message endpoint being configured to verify that messages sent from the device to the service comply with a schema.

Applicants can find no reference in Lee or Hind, either separately or in combination that teaches such a method wherein said message endpoint is configured to verify that said messages sent from the device to the service comply with said schema.

Therefore, in light of the above remarks, applicants assert that the rejection of claim 9 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 9 apply to claim 22.

Regarding claim 10, Applicants submit that Hind fails to teach a method wherein said schema defines messages to be sent to and received from the service wherein said messages are defined in a data representation language. In contrast, Hind teaches that intermediaries in his system apply various types of translation and/or transformations based upon target (client) context, giving the transformation of a response from XML to another data markup language as an example (Hind, column 7, lines 19-33). Hind also teaches how a DTD, as a definition of an XML document, tell a parser how to interpret the XML document, such as by defining entries for title, author, retail price, cost and quantity of a book, in one example (Hind, column 9, lines 27-35). Applicants assert that Hind is describing various data translations and transformations on response documents in order to enforce specific data policies. Applicants further assert that nowhere does Hind describe a schema that defines message in a data representation to be sent to and received from a service. In fact, applicants can find no such teaching in Hind or Lee, either separately or in combination.

In light of the above remarks, applicants assert that the rejection of claim 10 is not supported by the cited art and withdrawal of the rejection is respectfully requested. Similar remarks as discussed above in regard to claim 10 apply to claim 23.

Applicants also assert that numerous other ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicants hereby petition for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-66200/RCK.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

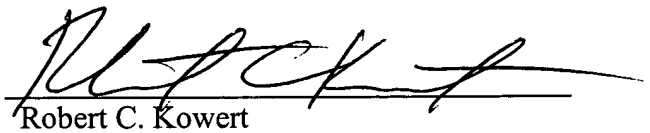
☐ Petition for Extension of Time

☐ Notice of Change of Address

☐ Fee Authorization Form authorizing a deposit account debit in the amount of $ for fees ( ).

☐ Other:

Respectfully submitted,



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